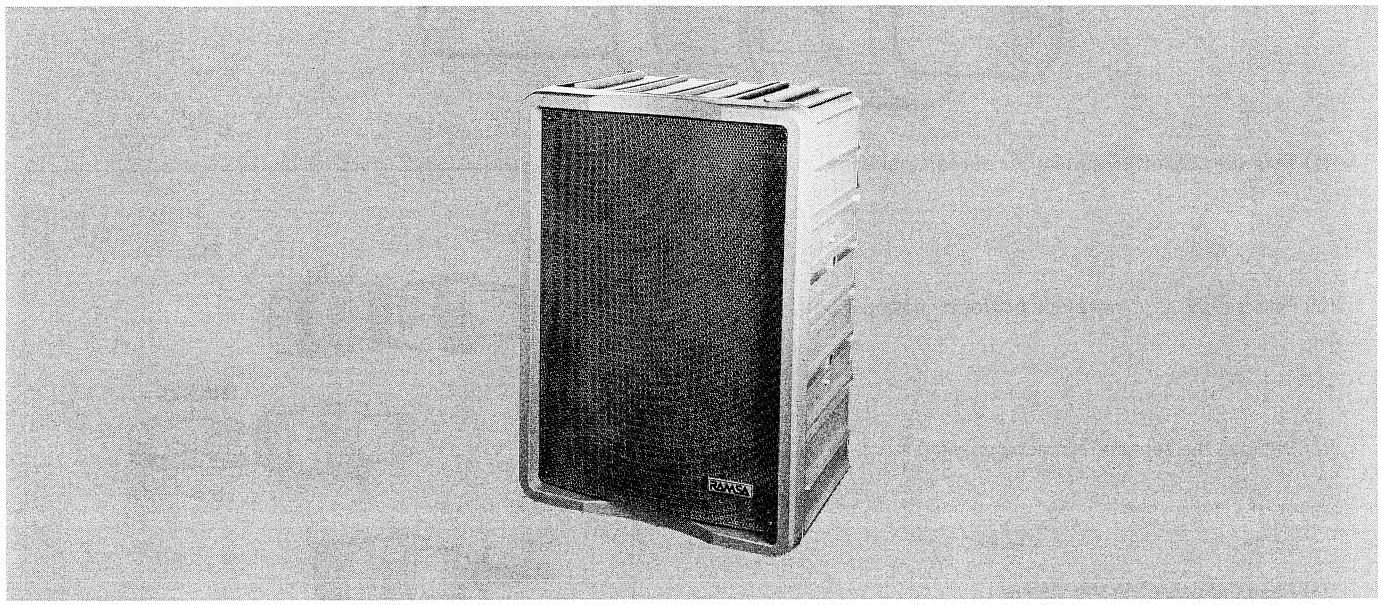
ORDER NO. AVS8911260C8

7003

Service Manual

Speaker System

WS-A500-K/WS-A500-W



SPECIFICATIONS

Type:	Bass reflex type
Impedance:	8 ohms
Power Capacity:	200W (continuous program) 100W (RMS, EIA RS-426-A)
Sound Pressure Level:	99dB (1W 1m)
Frequency Characteristics:	70 - 20 kHz
Crossover frequency:	1600 Hz
Speaker:	Low: 30cm corn speaker High: Twin Bessel Horn Speaker 60° (horizontal) x 40° (vertical)
Dimensions:	15-8/16" [W] x 21-7/8" [H] x 10-11/16" [D] 395mm [W] x 557mm [H] x 272.5mm [D]
Weight:	Approx. 38.5 lbs. (Approx. 17.5 kg)
Accessories:	Wing nut x 2 pcs.

- Dimensions and weight indicated are approximate.
- Specifications are subject to change without notice.
- True effective power measured by the test method prescribed by EIA (Electronic Industries Association) RS-426-A (1980).
  In this test, a noise signal with an increased high frequency power component was used as a test signal to match the latest program sources.
  (The test signal is a white noise signal passed through an RC high-pass filter with a time constant of 4 msec, and an RC low-pass filter with a time constant of 5 msec.)

Panasonic

Matsushita Electric Industrial Co., Ltd.
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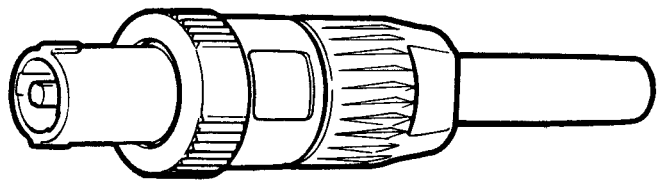
7003

CONNECTION OF SPEAKER CABLES

When connecting the input cable to the speaker, 4 POLE connector NL4FC series made by **NEUTRIK®AG** should be used.



(1) Take the cap off by turning it counterclockwise.

(2) Remove the terminal block holder by pulling it out.

(3) Remove the terminal block by pushing it out.

(4) Pass the cable via the sleeve.

(5) Loosed the screw for holding the speaker cable.

(6) Insert the speaker cable into the terminal.

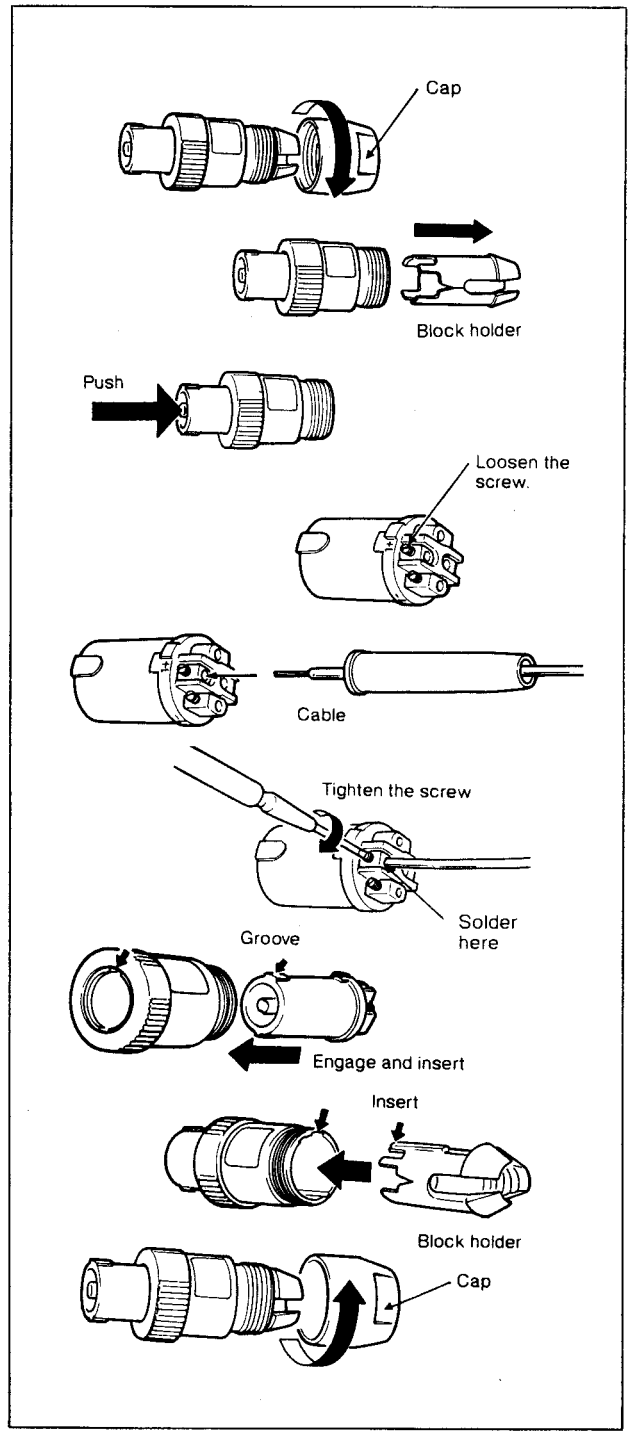
(7) Tighten the screw to secure the speaker cable.

(8) To prevent the accident and maintain the reliability, recommend to solder the speaker cable and terminal.

(9) Insert the terminal block into the sleeve by engaging the groove on the sleeve and the projection of the terminal block.

(10) Insert the terminal block holder into the sleeve by engaging the grooves on both.

(11) Attach the cap by turning it clockwise.



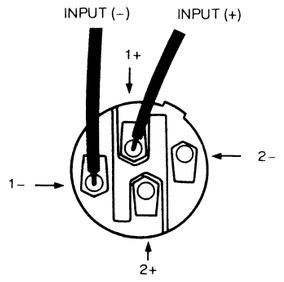
- **There is difference in wiring the connector which is used in FULL RANGE and BI-AMP operation.**
  Wiring the connector as shown below.

FULL RANGE OPERATION

Set the Mode Selection switch on the rear panel to FULL RANGE position.

CONNECTOR

PIN	WIRING
1+	INPUT +
1–	INPUT –
2+	N/C
2–	

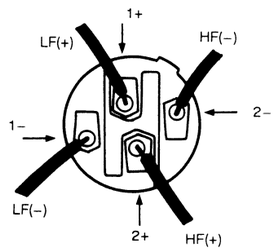


BI-AMP OPERATION

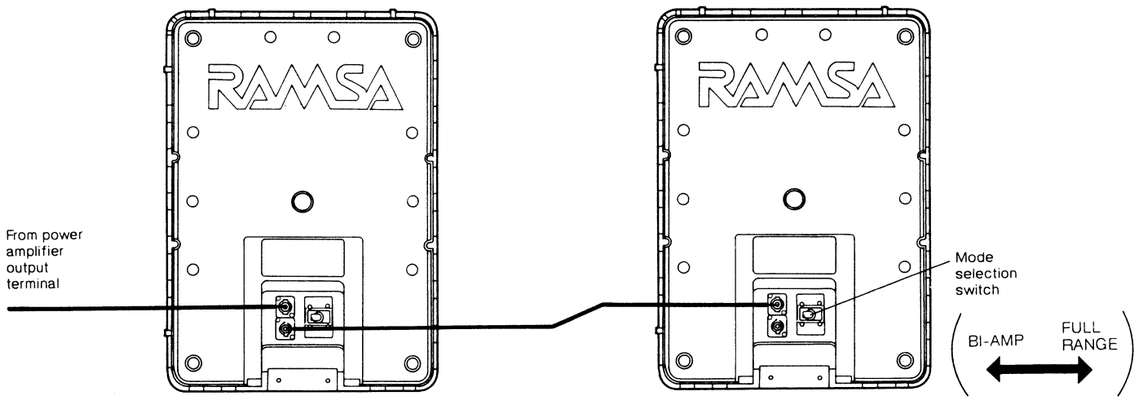
Set the Mode Selection switch on the rear panel to BI-AMP position.

CONNECTOR

PIN	WIRING
1+	LF +
1–	LF –
2+	HF +
2–	HF –



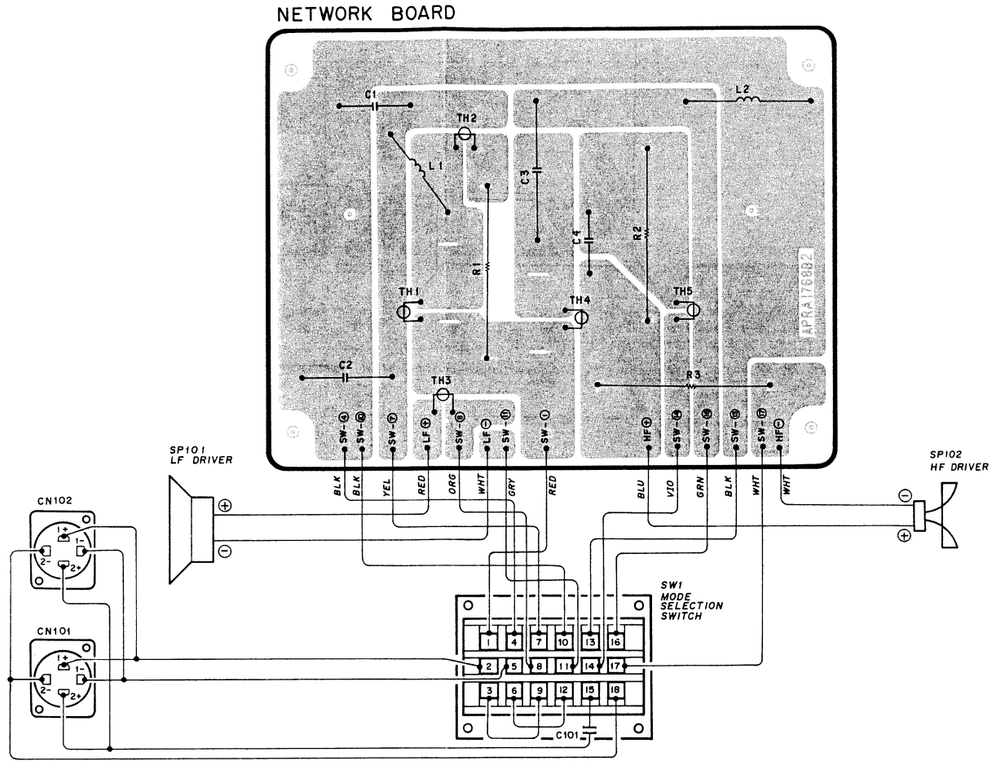
- **Connect speakers in parallel as shown below.**



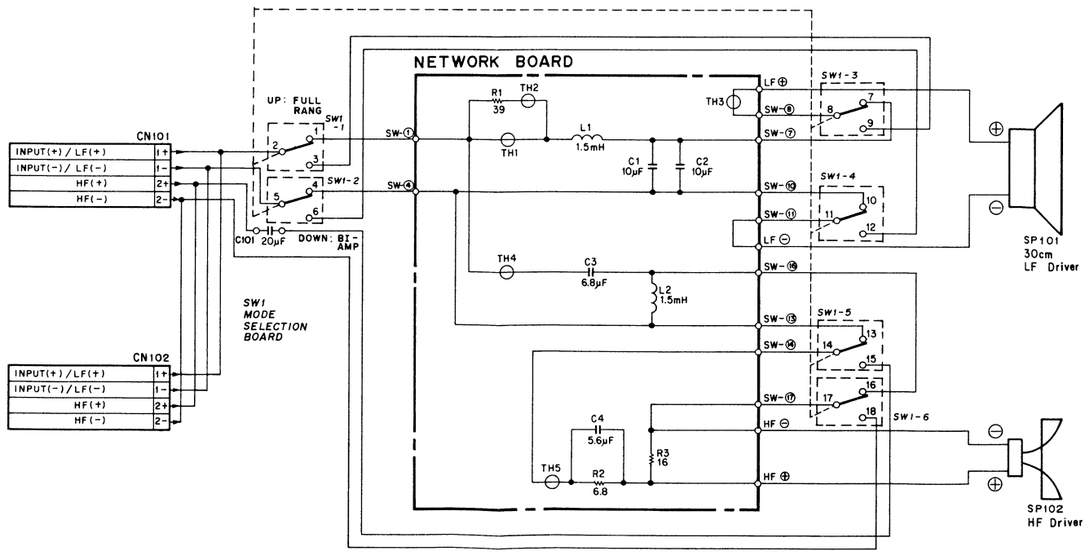
CAUTIONS FOR CONNECTION

- **Before connecting the speaker, be sure to turn off the amplifier power switch.**
- The input impedance of this speaker is 8 ohms.
- Check to make sure that the amplifier to be connected is designed to be used with speakers with a 4 to 8 ohm impedance rating.
- The connecting cable used for the speaker and amplifier should be as large as possible in diameter to minimize the DC resistance.
- **When two or more speakers are to be used in the same room, be sure to match the polarity.**
- Up to two speakers may be connected in parallel.

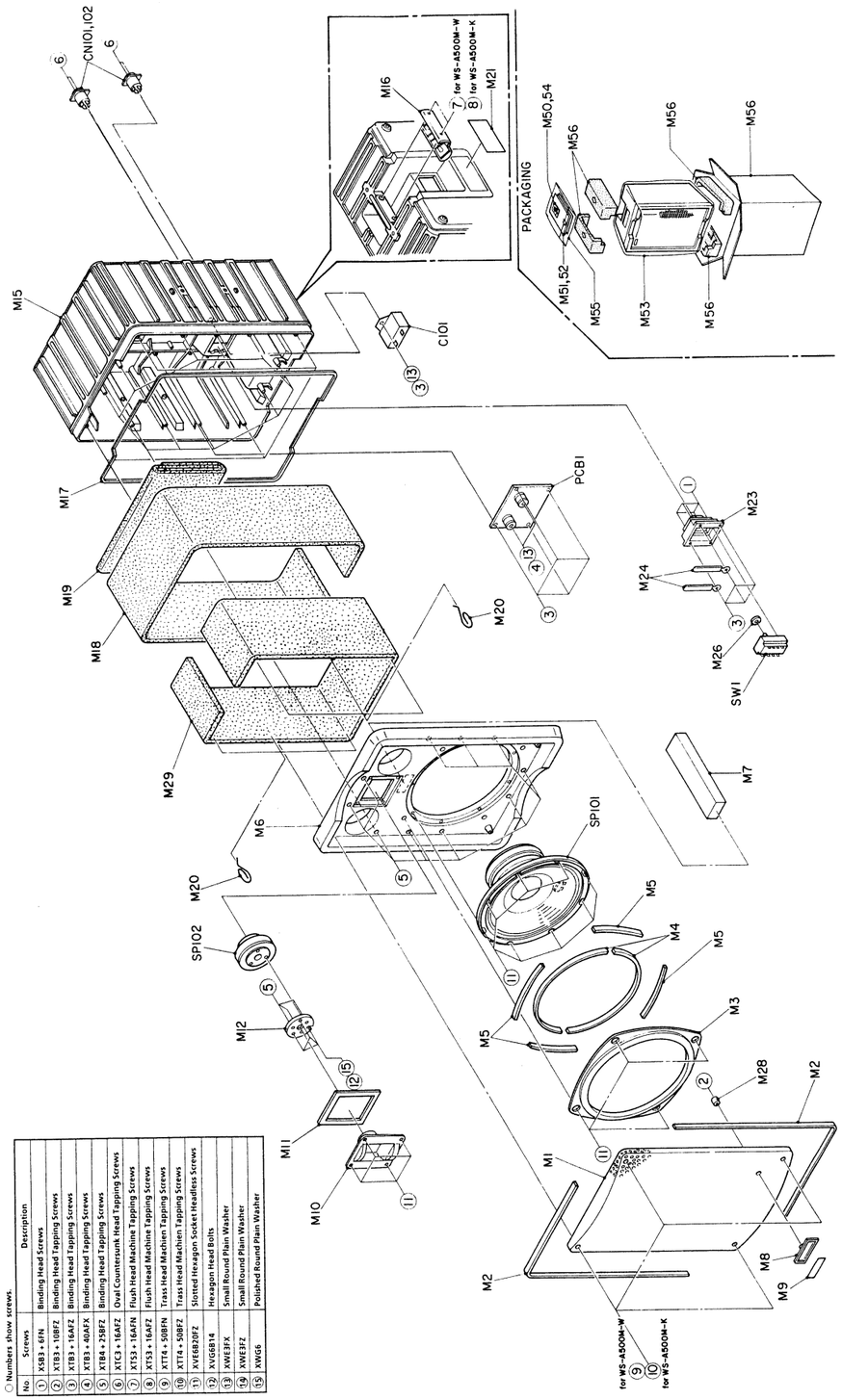
CONDUCTOR VIEW OF NETWORK BOARD



SCHEMATIC DIAGRAM OF NETWORK BOARD



EXPLODED VIEW



○ Numbers show screws.

No.	Screws	Description
①	XSB3 + 6FN	Binding Head Screws
②	XTB3 + 10BFZ	Binding Head Tapping Screws
③	XTB3 + 16AFZ	Binding Head Tapping Screws
④	XTB3 + 40AFX	Binding Head Tapping Screws
⑤	XTB4 + 25BFZ	Binding Head Tapping Screws
⑥	XTC3 + 16AFZ	Oval Countersunk Head Tapping Screws
⑦	XTS3 + 16AFN	Flush Head Machine Tapping Screws
⑧	XTS3 + 16AFZ	Flush Head Machine Tapping Screws
⑨	XTT4 + 50BFN	Trass Head Machien Tapping Screws
⑩	XTT4 + 50BFZ	Trass Head Machien Tapping Screws
⑪	XVE6B20FZ	Slotted Hexagon Socket Headless Screws
⑫	XVG6B14	Hexagon Head Bolts
⑬	XWE3FX	Small Round Plain Washer
⑭	XWE3FZ	Small Round Plain Washer
⑮	XWG6	Polished Round Plain Washer

REPLACEMENT PARTS LIST

Important Notice

1. Components identified by "⚠" mark have special characteristics important for safety.
   When replacing any of these components, use only manufacturer's specified parts.
2. Printed circuit board assembly with mark (NLA) is no longer available after production discontinuation of the complete set.

REF.NO.	PART NO.	DESCRIPTION
MISCELLANEOUS		
C101	ECWS22206JZ9	Plastic
CN101,102	YWNL4MP	Connector
SP101	EAS30PL123S	Speaker
SP102	EAS45HD06SA	Speaker
M1	YWA5SA0181A3	Net for WS-A500-K
	YWA5SB0181A3	Net for WS-A500-W
M2	YWA2FA0453A4	Cushion for WS-A500-K
	YWA2FB0453A4	Cushion for WS-A500-W
M3	YWA5DA0255A1	Ornament
M4	YWA2FA0455A4	Cushion
M5	YWA2FA0456A4	Cushion
M6	YWA5KA0967A1	Case for WS-A500-K
	YWA5KB0967A1	Case for WS-A500-W
M7	YWA3BA0035A4	Supporting Angle
M8	YWA5DA0254A4	Ornament for WS-A500-K
	YWA5DB0254A4	Ornament for WS-A500-W
M9	YWA7PA0073A4	Badge for WS-A500-K
	YWA7PB0073A4	Badge for WS-A500-W
M10	YWA6HA0031B1	Horn
M11	YWA2FA0124A4	Cushion
M12	YWA5AA0040A3	Adaptor
M15	YWA5KD0307A1	Case for WS-A500-K
	YWA5KE0307A1	Case for WS-A500-W
M16	YWA6AC0006B3	Handle for WS-A500-K
	YWA6AB0006B3	Handle for WS-A500-W
M17	YWA2FA0146A4	Cushion
M18	YWA7AA0264A4	Sound Filter
M19	YWA7AA0265A4	Sound Filter
M20	YWA3CA0198A4	Parts Holder
M21	YWA7QA2061A4	Main Label for WS-A500-K
	YWA7QB2061A4	Main Label for WS-A500-W
M23	YWA5AA0042A3	Adaptor for WS-A500-K
	YWA5AB0042A3	Adaptor for WS-A500-W
M24	YWCS4	Cord Clamp
M26	YWA2FA0454A4	Cushion
M28	YWA2NA0307A4	Spacer for WS-A500-K
	YWA2NB0307A4	Spacer for WS-A500-W

REF.NO.	PART NO.	DESCRIPTION	
NETWORK BOARD			
PCB1	YWAPRA1768A2	Printed Board	
TH1	YWRXE185	Thermistor	
TH4	YWRXE110	Thermistor	
TH3	YWRXE160	Thermistor	
TH5	YWRXE90	Thermistor	
R1	ERF20ZXJ390	Wire Wound	39 ohms 20W
R2	ERF20ZXK6R8	Wire Wound	6.8 ohms 20W
R3	ERF20ZXJ160	Wire Wound	16 ohms 20W
C1,2	ECQE1106JN	Plastic	10 µF 100V
C3	ECQE2685JS	Plastic	6.8 µF 250V
C4	ECQE1565JN	Plastic	5.6 µF 100V
L1,2	SLCSB152JU	Coil	
SW1	YWET620N13	Toggle Switch	

ACCESSORY PARTS/PACKAGING PARTS		
M51	YWA8QA1970AN	Operating Instructions for USA
	YWA8QA1975AN	Operating Instructions for Europe
M52	YWA8RA0134BN	Printed Matters
M53	YWA8EA0046A4	Polyethylene Bag
M54	YWT10X10C03	Polyethylene Bag
M55	XZB26X40C05	Polyethylene Bag
M56	YWSA500MKHA1	Packaging Assy for WS-A500-K
	YWSA500MWHA1	Packaging Assy for WS-A500-W

Printed in Japan
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